

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.15**SOURCE INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** SIR-002277**Date Inspected:** 29-Nov-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island**Location:** Changxing Dao, Shanghai**Quality Control Contact:** William (Bill) Oak**Quality Control Present:** Yes No**Material transfer:** Yes No N/A**Sampled Items:** Yes No N/A**Stock Transfer:** Yes No N/A**OK to Cut:** Yes No N/A**Rebar Test Witness:** Yes No N/A**Delayed/Cancelled:** Yes No N/A**Other:** Coatings Inspection**Bridge No:** 34-0006**Component:** OBG 7DE, OBG 7EE, Sub-Assemblies, North**Bid Item:** 77, 78, 79**Lot No:** B265**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials (OSM) Quality Assurance (QA) NACE III coating inspector, Mr. James Lumley arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island in Shanghai, China. The purpose of the coating inspections are to monitor the surface preparation and coating applications for the SAS Bay Bridge project. This QA NACE III coating inspector observed the following:

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Review and forward emails to Task Leader Mahlon Lindenmuth. Updated and also review expanded use of Organic Zinc Rich primer Interzinc 52 undercoat for repairs of Interzinc 22 Inorganic Zinc Rich primer undercoat. OBG 7DE

ZPMC personnel performing touch up and repairs to internal undercoated surfaces. External surfaces are in process of dry-spray removal for "Mist" coat application of Interfine 979 top coat. External surface of the FL-3 beam to be "Mist" coated was observed to have over blast damages to the undercoat and additional Interzinc 22 was applied to amend repairs, this area was left un coated with "Mist" coat of Interfine 979.

**OBG 7EE**

External Base Metal surfaces were abrasive blasted for preliminary blast to perform VT inspection and chloride testing. Chloride values were 10,10, 20,30 us/cm. Grinding of gouges and sharp edges took place and after re-blasting to an SSPC SP-10 condition and subsequent re-inspection Interzinc 22 was applied. Profile amplitude was 72-80um.

**Sub-Assemblies**

Performed follow-up inspection inside Paint Shop#2 of Splice Plates and Channel Iron. Channel Iron fabrication incomplete as no holes were drilled in the ends.

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Reviewed and sign project documentation and Notice of Inspection from ZPMC in ABF satellite office.

### North Tower Lift #1

Internal stiffeners previously "Shop Primed" were abrasive blasted to base metal and an SSPC SP-10 condition and Interzinc 22 undercoat applied. A total of 64 stiffeners are scheduled for installation of this quantity 12 were abrasive blasted. ZPMC was urged to abrasive blast and coat these components by ABF Don Walton inside the blasting workshop and apply the specified Interzinc 22 undercoat on many previous occasions prior to stocking the materials within the tower shafts.

### Sub-Assemblies

OBG 6CE Cross Beam Bottom Plate base metal surfaces were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 applied.

### Lift 3West

Internal weld seam repairs of 3AW/3BW weld on Bottom Plate were cleaned in accordance with SSPC SP-11, and SSPC SP-1 Interzinc 52 was applied to the area to amend repairs from NDT verification. Profile amplitude was 46, 48um.

### Lift 2 West

Repairs to End Weld Seam and Floor Beam Diaphragm were performed by abrasive blasting to Base Metal and an SSPC SP-10 condition to remove damaged previously applied undercoat and rust stain and re-application of Interzinc 22 undercoat was performed at Panel Point #13. Profile amplitude was 78-82um.

### Sub-Assemblies

Interfine 979 Finish coating was applied to Eight (8) Traveler Rail Brackets coded: TR1B PP29, TR1B PP31, TR1B PP35, TR1C PP30, TR1C PP32, TR1E PP32, TR1E PP34, TR7B PP8.5

### Lift 3 West

Repairs were performed on the Upper Corner Unit weld seam and Top Deck/Edge Plate both internally and external areas of NDT damaged areas were cleaned and coated with Interzinc 52 undercoat.

### South Tower Lift #1

Base Metal surfaces of the stiffeners to be installed from 0-2M of Skins A, B, C, D, E were washed and degreased in accordance with SSPC SP-1 prior to abrasive blasting operations this work was performed on the external areas of installation of the weld area and adjacent area as well.

### East Tower Lift #1

Nine (9) Internal stiffeners for installation to be welded at tower base from 0-2M Skins A, B, C, D, E Base metal surfaces were abrasive blasted to an SSPC SP-10 condition and Interzinc 22 undercoat applied. Of the nine (9) pieces only four (4) were undercoated.

Note: All inspections were performed jointly with ABF & ZPMC QA/QC representatives and Caltrans QA Lumley when achievable. International Protective Coatings technical service representative were available for inspections and consultation.

### Summary of Conversations:

No relevant conversations on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (858) 699-9549, who represents the Office of Structural Materials for your project.

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**Inspected By:** Lumley,James

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer